

**DEQ – Air Quality Division
SUMMARY OF NEGOTIATED RULEMAKING
DAIRY PERMITTING RULEMAKING
DOCKET No. 58-0101-0502
December 16, 2005**

PARTICIPANTS

Bauer, Martin – DEQ
Beard, Phyllis – Amalgamated Sugar
Eddie, Bill – Advocates for the West
Haynes, Claudia - Canyon County
Kronberg, Lisa – Attorney General's Office
Ledbetter, Greg - ISDA
Louks, Bruce – DEQ
McClure, Ken – Givens Pursley
McLean, Lauren – Idaho Conservation League
Naerebout, Bob – Idaho Dairywomen's Association
Olmstead, Brent – Milk Producers of Idaho
Patten, Marv – ISDA
Sheffield, Ron – University of Idaho
Simon, Mike – DEQ
Smith, Toy – Northwest Dairy Association
Heitman, Phyllis – DEQ (Admin Support)

Martin Bauer called the meeting to order at 9:05 a.m., and the participants introduced themselves. Mr. Bauer spoke briefly about a recent Northwest Air Directors meeting. He presented information to the Directors about the discussions DEQ, dairymen and environmentalists are conducting on the dairy ammonia emissions rule. The Directors were pleased at what Idaho is accomplishing and amazed that all stakeholders would be willing to come to the table.

FINAL REVIEW OF BMPs

Mr. Bauer turned the meeting to Bruce Louks and Ron Sheffield for final discussion of BMPs and clarification of the following items:

- **Add "Direct Daily Incorporation of Slurry" to land application BMP's. This area has already been addressed by "Direct Utilization of Collected Slurry" in the waste storage and treatment section as well as by "Soil Injection Slurry" and "Incorporation Manure within 24 Hours or 48 Hours" in the land application section.**

Mr. Louks and Mr. Sheffield do not think an additional BMP is needed.

- **Define "direct" – slurry or wastewater is stored no longer than 3 days.**

Mr. Sheffield said this takes into account the times when dairymen are not able to work in the field due to weather, etc. The farm can install larger, temporary storage so if it has a 2- or 3-day window of time it can hold the material and not have points discounted. Marv Patten asked about separation ponds and where does slurry begin and end. Mr. Sheffield said slurry is a mixture of feces and urine. Separated liquid is something different. This is not for a flush system; this is for a direct scrape, daily incorporation system. The dairyman directly utilizes the material, not putting it in storage, but going directly to land application. If he broadcasts the material, no additional points are given; if he injects, the farm receives 10 points, if he broadcasts and incorporates within 24 hours, 10 points, or 48 hours, less points.

- **Insert an introduction to the BMP definitions that explains how the numbers were originally developed, what studies and best engineering judgments were used to determine the numbers, and how they were scaled. Best professional judgment was used for all point determinations. BMP's can be found in trade publications.**

Mr. Bauer said he would like the introduction to state the committee began with a random value of 20 and applied it through best professional judgment for the best control possible; everything is scaled from that 20 points. The logic flows that a 20-point BMP is the best and a 10-point BMP is half of what the best was. The introduction should also state these practices control ammonia and not odor. This language would be part of the guidance document and on the web to assist with reader understanding.

Mr. Louks and Mr. Sheffield will draft introduction language.

- **Explain point distribution for Direct Utilization of Collected Slurry – open lots have less volume (6 points) than freestall scrape (10 points) and freestall flush (0 points).**

Mr. Patten said he needed more explanation of the 10-point value on the freestall scrape for the separated slurry liquid manure basins and the 10-point value for direct utilization of parlor wastewater and how volume of material affects the points.

Mr. Sheffield said, for the parlor wastewater, regardless of the housing systems, the volume remains the same. When you go to the slurry, the open lot is going to be approximately 40% that can be collected on the feed apron of the daily deposit volume versus the 85% you can collect in a freestall system. Mr. Patten said that in a freestall scrape it is still just 10 points even though the volume is greater than the barn. Mr. Sheffield said there is a surface area function and water dilution. As material is diluted in water, the manure and water becomes more easily volatilized than when it is in the slurry and then when it is in the barn, because of the surface area, that volatilization is reduced as well. So it is not a one-to-one issue based on volume.

Mr. Sheffield said that when you take the 15% manure and add it to wastewater, because of the dilution factor, the ammonia can be more readily emitted than if you took 85% of the manure and kept it as slurry. Less will be volatilized off the thicker, more concentrated material than would off of more dilute material in water.

Ms. Kronberg suggested that on some BMPs there should be an explanation in the guidance on how numbers were developed. Mr. Bauer agreed this would be beneficial for those BMPs the inspector sees routinely but for which questions regularly arise.

Regarding parlor wastewater, Mr. Bauer reiterated that parlor wastewater will run into a collection basin where the process is continuous - water regularly runs in and out. The basin will not completely fill up and then completely empty. He asked how the inspector will determine that it is being pumped out in 3 days. Mr. Sheffield said that in the middle of the summer if the pond is dry, the inspector will know the dairyman is not pumping material to storage. If the basin is three-quarters full, the inspector will know the operators did not pump for the last day or so. Mr. Bauer asked if the collection area can hold more than 3 days of water. Mr. Sheffield said most will. If a pump breaks, the dairyman will still want to do this practice. Parts can normally be replaced and maintenance issues handled in 3 days. Mr. Louks said he did not see an inspection where you would look at the collection area and ask if the material had been there 3 days or 4 days. He does not see that as criteria for pass/fail. Mr. Bauer said the question might be, are you applying this daily. If the equipment breaks down, the dairyman will need to keep a deviation log.

Ken McClure brought up the issue of performing BMPs only when it is practical to do them. He thought the group had agreed that, if there is a breakdown of equipment and the dairyman does what he should do to promptly fix the equipment, the fact the BMP was not performed that day does not deny him the points. He said this type of discussion has not been included in the rule.

Mr. Bauer said there are two things here. One is that on land application, for instance, the rule says you do it when it is applicable – weather, etc. The other instance is where the dairyman has to move material every 3 days and his pump breaks for two weeks. This last situation is when the dairyman must log the breakdown as a deviation and make the repair as soon as possible. The inspector has the discretion to analyze this situation and determine if points should be applied.

Mr. McClure said he would like to see something in the rule to accommodate this issue. He is not trying to protect the dairyman who does not fix his equipment for six months, but the rule should say something to the effect that the operator will receive points if he makes his repair in a reasonable fashion. Mr. Bauer said this would be satisfied by keeping a log. He does not know how much comfort level can be built into the rule.

Mr. McClure asked about how this situation is handled with industrial sources. Mr. Bauer said those rules are a little stricter. Sources have to certify compliance and there is breakdown flexibility built into the permit. Ms. Kronberg said facilities must report an upset or breakdown and how it plans to handle with minimal impact; the Department has discretion of taking enforcement action. Mr. Bauer said he would recommend dairies keep a log to indicate when it was not in compliance and state the facility did not pump for x-number of days, pump was replaced on x-date and the BMP was operational on x-date. Ms. Kronberg said some of the language could be taken from the industrial source rules and inserted in the dairy guidance document.

- **Assign points for “In-House Separation” and “Summertime Deep Bedding” – this is under development, and points cannot be assigned at this time.**

Deep Bedding

The Summertime Deep Bedding practice was conducted in a bubble study by the University of California-Davis. Researchers placed 6 inches of straw on an open corral surface as a one-time application. Researchers saw approximately a 40% reduction in ammonia emission – the urine floats through and the feces remains on top. No field studies have been conducted. Mr. Sheffield said the points for this practice would be 10-5-5. He added this practice should be moved from the waste storage section and placed in the open lots and corrals section. Compliance would be observation of dry material on top of the straw.

The comment was made that this process will be a breeding ground for flies and did this group want to encourage such a practice by placing it on the BMP list. Mr. McClure said this rule deals with ammonia control and this BMP provides that control. This issue could be discussed in the guidance document for those who want to use the BMP and have a means of controlling the fly problem. Ms. Haynes said there are products and feed available to aid in preventing fly problems.

In-House Separation

In-House Separation is a system that allows the dairyman to design the floor of the facility so that fecal material stays in one place and the urine goes to another location. Mr. Sheffield stated this is the same concept as the deep bedding but is done through concrete manipulation rather than through straw. The urine is treated by itself and the fecal material can be land applied. This practice would be used in a freestall scrape situation only. Points would be 0-12-0. This system is more efficient than regular separation. More than likely this will be used only in new dairies; cost to retrofit would be prohibitive. Compliance would be observation.

Mr. Sheffield said neither of these practices is used in Idaho at this time. Mr. Bauer said he would like to add the practices to the list and asked for Mr. Sheffield to set best-guess, professional judgment numbers; after studies are published, points can be adjusted is necessary.

THIRD-PARTY EXPORT

Ms. Kronberg updated the group on discussions she, Mr. Patten and Mr. McClure had following the last meeting. Ms. Kronberg related that everyone seems very interested in acknowledging the role of third-party export in various BMPs. Most think exportation should not be discouraged. She stated she has issues with the practice from a legal standpoint because this rule has no enforcement authority if material exported to the third party ends up creating a pollution issue. Mr. Patten explained that conceptually the group should encourage any practice that collects materials from the animals and places it into the ground; it makes no difference whether that takes place onsite or in a third-party situation. Verification can be obtained from the third party that material has been properly handled.

Mr. McClure said the dairyman will have an agreement with the recipient that requires the recipient to incorporate within 24 hours or 48 hours. By having this agreement, the dairyman will have satisfied the requirements to obtain the points. If the dairyman or inspector obtains proof that the third party is not complying with the agreement, the dairy would lose the points. Mr. Bauer agreed.

Regarding verification, an inspector can either observe a truck moving the material per an agreement, or a citizen can alert the department that the material has been sitting for 3 days, in which case the points may be taken away. Mr. Louks said he is not sure the inspector would even follow the truck – he would just see that the dairy had an agreement. Ms. Kronberg added that the Nutrient Management Plan (NMP) is another independent document that can be used for verification; the NMP contains information about how much material was exported. Mr. Patten said his staff knows the trucks that pick up this kind of material. Many have injection equipment on their vehicles that allow immediate disposition of the material - they are not holding it. Ms. Kronberg stated the rule does not provide the tight legal package she would like.

Mr. Bauer said the rule will provide that dairyman must have an agreement and the agency will have the ability to verify through inspection. Ms. Hayes said she would like to see a sample of this agreement and required elements - volume being contracted for, destination of material and BMP for which points will be awarded. The NMP precludes a landowner from taking more waste than his land will accommodate and records are required for verification. The NMP does not require a contract, just verification as to the destination of the material and the number of acres to which the material will be applied. Ms. Kronberg said the only element missing is what practice the third party will use to deal with the material.

In regard to the contract with the third party, Mr. McClure said the dairymen will have an agreement but not necessarily a contract. This might be an oral agreement. Mr. Bauer said the dairyman will be responsible for recording the method of disposal in order to obtain the points. Content of the agreement could be part of the guidance document. Ms. Hayes she wants to see a written document, not an oral agreement. Mr. Bauer said he agrees otherwise there is no way to determine compliance. Mr. McClure disagreed.

Ms. Kronberg suggested adding a footnote on the BMP table to indicate which practices might involve exportation to a third party. Mr. Sheffield reminded the group that one of their initial conversations stated this rule only has jurisdiction within the perimeter of the dairy facility. Now the group is discussing awarding points based on what a third party does with the material. Ms. Kronberg said the rule does not give the department any inspection or compliance authority over the third party. Even though the practice is offsite, the rule wants to encourage the practice because it is directly related to the dairy operation.

Ms. McLean asked how points are awarded when less than 100% of material is shipped offsite. Mr. Sheffield said points would be prorated. The points on the BMP chart assume 100% is handled onsite. Ms. McLean said this needs to be explained in the guidance document.

Mr. Bauer said the NMP will document three of the important facts: the volume of material being exported, recipient's name, and destination of exported material. DEQ would like to see an agreement, not necessarily signed, that states what the third party will do with it, and that the dairyman is taking x-number of points for the BMP. Mr. Sheffield said the new NPDES rule requires that each permitted facility must provide, on an annual basis, an analysis of manure material exported to third parties. These facilities will additionally state that the manure needs to be handled by one of the incorporation practices.

After discussion, the group agreed that the BMP must be documented. Mr. McClure asked if he is correct in stating that if a dairyman wants credit for 24-hour incorporation, he should either amend his NMP to state the recipient will incorporate within 24 hours, or have a written agreement. Mr. Patten said the dairyman will probably not want this written in his NMP because a violation of the NMP by the third party would lead to corrective action, whereas, if a violation occurs under the ammonia rule, the dairyman only loses his points.

Mr. McClure asked to have this discussion held over to the next meeting. The action item is for dairymen to discuss and advise the group at the next meeting if they will agree to documentation of the BMP. Mr. Bauer added that DEQ may not be able to agree with not having this documentation. He said DEQ can probably be flexible on the type of document.

Ms. Kronberg asked if Mr. Patten could mark which BMPs could have an export component. Mr. Sheffield and Mr. Bauer agreed it would be a bad idea to make that part of the chart; perhaps something could be added to the guidance document. Ms. Kronberg said she is concerned about putting a third-party discussion in the guidance document. Mr. Sheffield suggested adding a statement to the BMP chart, such as "Points can be awarded to the dairyman for this activity if the following components can be documented."

Ms. Kronberg said she could develop some language.

FINALIZE RULE LANGUAGE

Ms. Kronberg said she and Mr. McClure discussed the draft rule following the last meeting and made additional revisions:

- Section 760 - Language was added to state forms will be located at the website
- Sections 762 and 763 – Revisions made to acknowledge farms that are already operating but that may trigger the threshold in the future

Mr. McClure said there is one issue that has been discussed but is not addressed in the rule is where a milking barn burns down and cows are temporarily moved to a second dairy. Placing cows on the second dairy could trigger the threshold for that dairy. Ms. Kronberg said catastrophic events may not fit in the rule, but instead should be part of the deviation reporting and the upset/breakdown process.

Mr. Bauer said he and Ms. Kronberg will discuss this and place a discussion item on the next agenda.

Mr. McClure said that other than this last item, the dairymen agree with the rule.

Bill Eddie suggested clarifying the phrase "these sections" in Section 762 and 763. Ms. Kronberg and Mr. Eddie will develop appropriate language.

LAUREN MCLEAN LEAVING ICL

Mr. Bauer told the group that Lauren McLean is taking another position at the end of the year and would not be participating in future meetings. Justin Hayes will represent ICL and Bill Eddie will also continue to attend.

POINT VALUE FOR PERMIT BY RULE

Mr. Bauer said he hopes the group can work through this topic in one or two meetings. The point value reflects the total number of points the dairyman needs in order to be in compliance with the rule. Mr. McClure said the objective of this rulemaking has been to bring substandard dairies up to par with other, well run dairies. It is not intended to require changes to those dairies that are properly operated. Mr. McClure said Brent Olmstead visited several of these "well-run" dairies and scored them according to the BMP list. As a double-check, he reviewed the ISDA database for complaints. He found these "well-run" dairies had no, or a low number of, complaints. Mr. McClure said Mr. Olmstead's scoring should guide the group to what the appropriate benchmark number should be. Mr. Olmstead reviewed his findings.

Dairy 1 (Ketterling) – 28 points (includes 8 points drag hoses that will be installed)

- Scored 22-23 points on bus tour survey
- Was not able to talk to Ketterling in person
- Does not compost
- Open lot dairy – 5000 head
- 7000 acre farm

- Very clean, well-maintained, new dairy
- Points given for solid separation, establishing buffer, frequent manure removal, rapid manure removal, corral harrowing, incorporation (48-hours), drag hoses (future purchase)
- Two complaints in last year (first complaint was the day before he had any cows on the facility) – Mr. Patten said some of the complaints may have been filed under another business name, so two may not be accurate

Dairy 2 – 40 points (29 without lagoon)

- Large flush dairy – 10,000 head
- Points given for aerated lagoon, low energy pressure system, incorporation (48 hours,) solid separation, establishing buffer, frequent manure removal, corral harrowing, dietary protein
- No complaints in last year

Dairy 3 – 35 points (25 without low pressure)

- Flush dairy - 5,000 head
- Points given for low energy pressure system, end guns (Mr. Olmstead was not entirely comfortable with system, so may not be entitled to full points)
- Composting with the carbon/nitrogen ratio using mint (another company manages for him and dairy sells compost as a soil amendment)
- Two complaints in last year

Dairy 4 – 33 points

Freestall facility (half flushed, half scraped), open lots also - 5,000 head

Points given for composting, solid separation, rapid manure removal, corral harrowing, in-corral composting, incorporation (48 hours), drag hoses

Points were pro-rated

Three complaints in the last year

Dairy 5 – 29 points

Small flush system – 1,200 head

Points given for fresh water dilution, incorporation (48 hours), composting, rapid manure removal, corral harrowing, dietary protein

No complaints in the last year – this is in a populated area with housing nearby

Mr. Eddie asked about doing surveys on a sampling of dairies that are not well run or that receive many complaints. Mr. Sheffield estimated that on dairy "not well run" would have scored approximately 7 points a couple years ago and would probably now score about 31. While this dairy still receives numerous complaints, the number has reduced drastically over past few years.

Bob Naerebout suggested that instead of having the dairy association conduct more surveys, it would be more appropriate for ISDA to do additional scoring, particularly since ISDA will be conducting the inspections.

Mr. Bauer asked if Mr. Patten could score the five dairies that Mr. Olmstead visited in addition to a sampling of additional dairies. The group will review those findings and establish the total point value at the next meeting.

Mr. Olmstead related that in discussing the BMP's with the dairymen, there was considerable confusion about "direct utilization"; more description is needed. Mr. Louks and Mr. Sheffield will review the definition.

SCHEDULE FOR FUTURE MEETINGS

The next negotiated rulemaking meeting was scheduled for January 3, 2006 from 2:00 p.m. – 5:00 p.m. at the DEQ Office Building in Boise.

Agenda will include:

- Final BMP Review
- Point Value for Permit by Rule
- Rule Language
- Third Party Export

The meeting adjourned at 12:10 p.m.